ASSESSMENT CENTER OVERVIEW AND DEMONSTRATION STUDY

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ASSESSMENT CENTER

Why did we create it?

- PROMIS investment in creation of item banks that can be administered as CATs
- No off-the-shelf platform for CAT administration to participants
- All researchers have more than CATs in a single study

What is Assessment Center?

- Web-based research management tool
- Enables creation of study-specific URLs
 - Participant interface for data collection
 - Administration of PROMIS short forms and CATs
 - Administration of other PRO instruments
 - Can create custom short forms
- Single time-point or multiple timepoint studies

More Features

- Item Development features
 - Tracking item revisions
- Multiple study arms
- Multiple levels of randomization
- Researcher-completed instruments

Even More Features

- Automated accrual reports
 - NIH accrual report format
- Real-time data export
 - Separation of PRO data, registration data (PHI), and consent data (more PHI)
- Patient-level single-timepoint data reports
- Automated data dictionary
- Assessment Center Offline
 - Non-internet data collection platform
- Free

Assessment Center Instrument Library

- Distribution mechanism for PROMIS item banks, short forms, and profiles
 - Adult and pediatric (pediatric proxy coming soon)
- Online administration or download PDFs
- Coming Soon to the Library:
 - PROMIS Cancer Supplement instruments
 - Neuro-QOL instruments

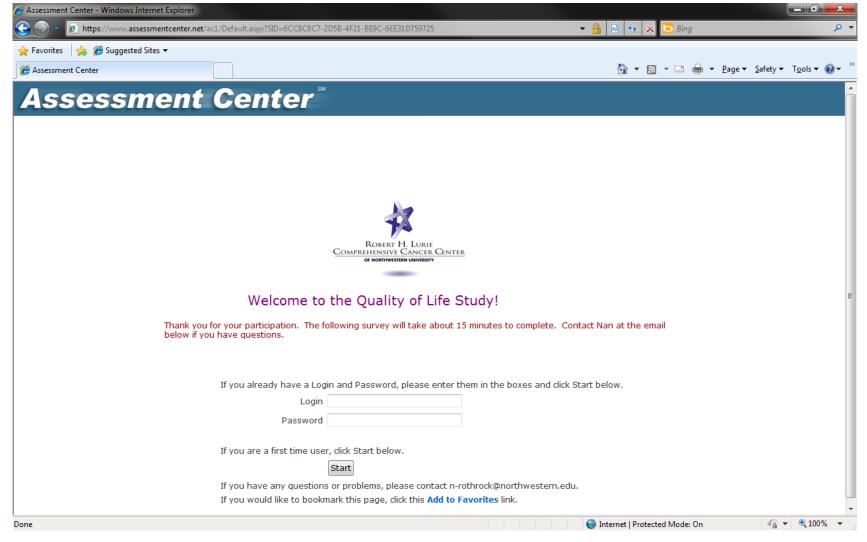
Planned New Features (2011-2013)

- Data collection for hand held device (e.g., smart phone)
- Increased reporting and tracking features
- Additional CAT engines
- Improved usability

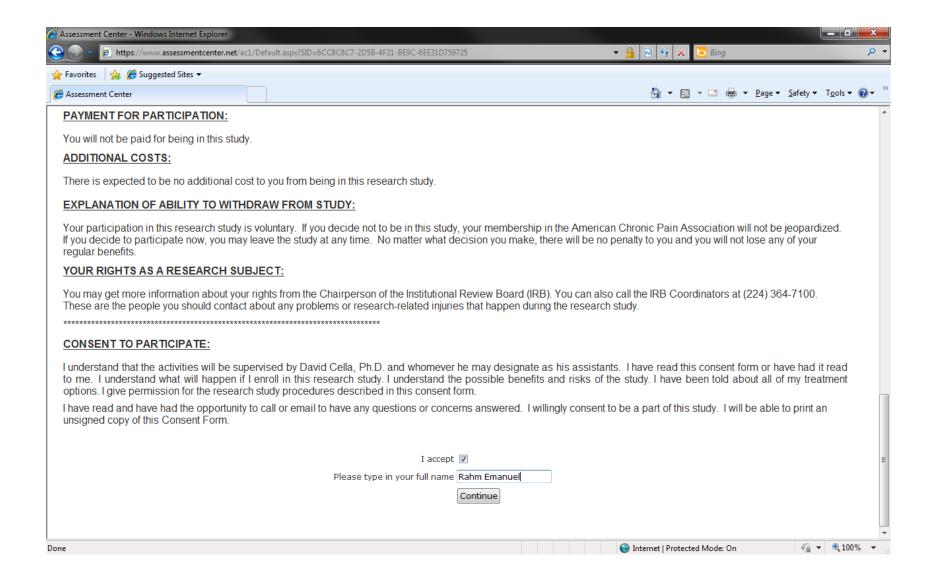
2010 Assessment Center Use Statistics

- >2600 registered researchers world wide
- >17,000 participants
- 1.6 million data points captured

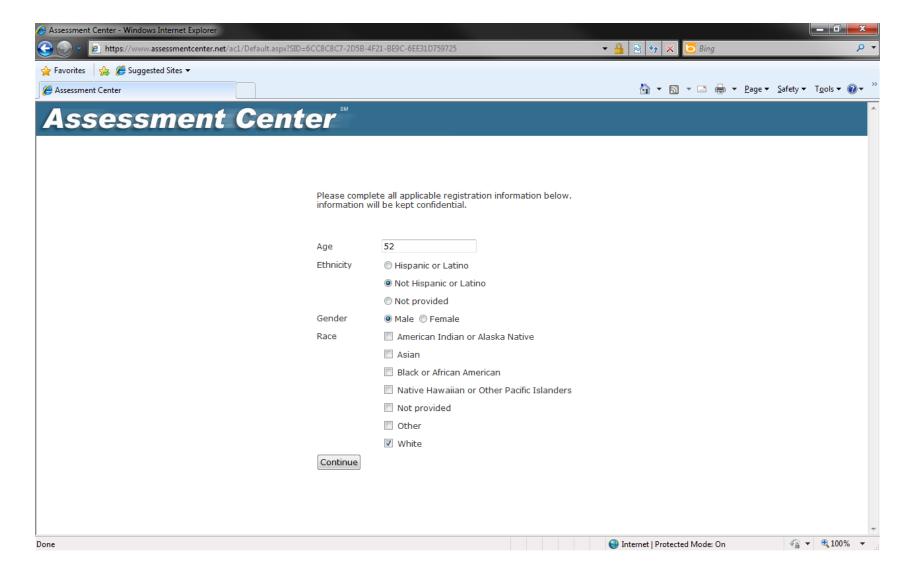
Demonstration Study: Participant Interface



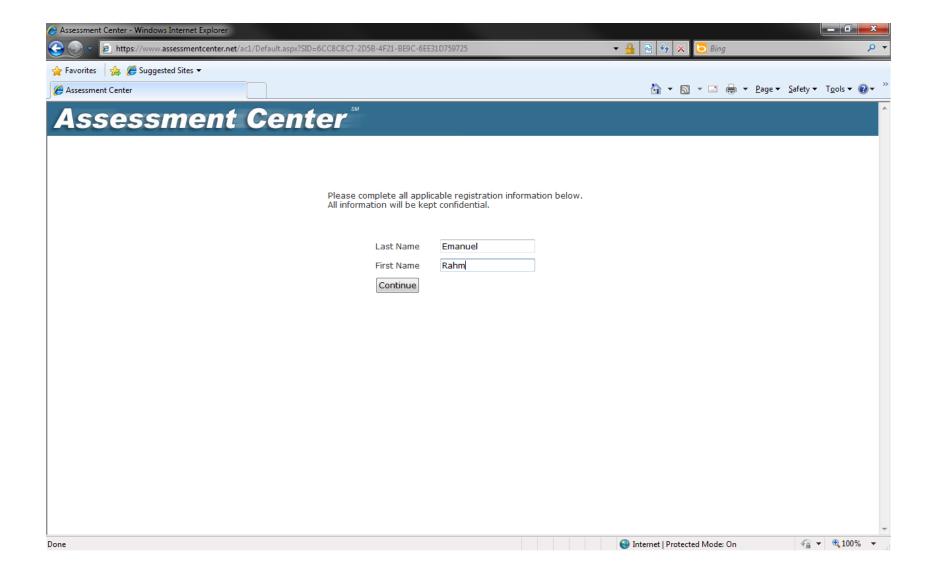
Optional Online Consent Forms



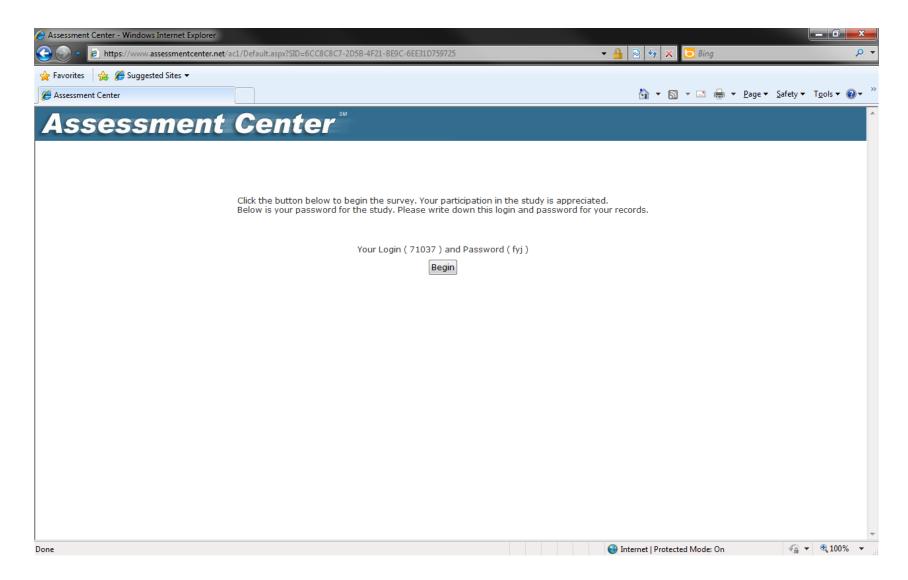
Demographic Information



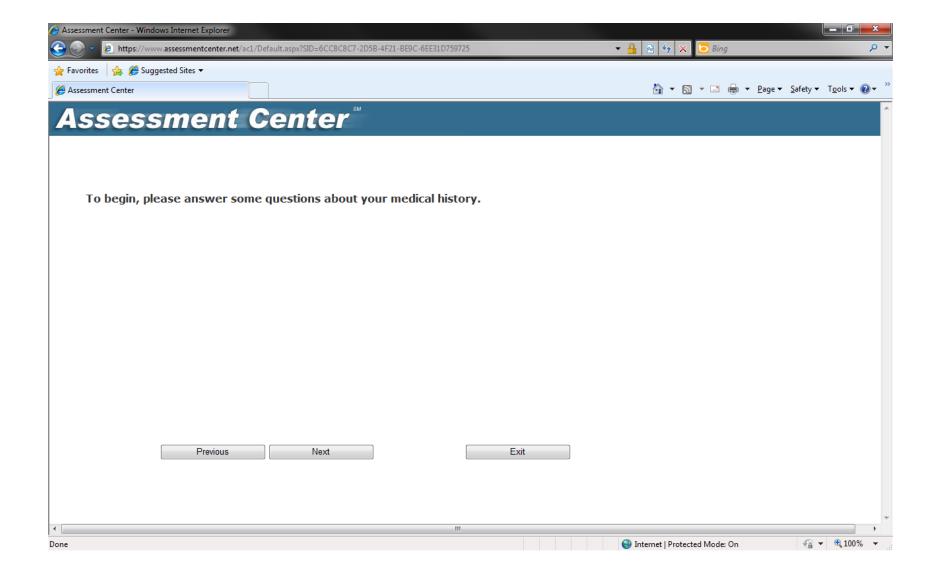
Protected Health Information



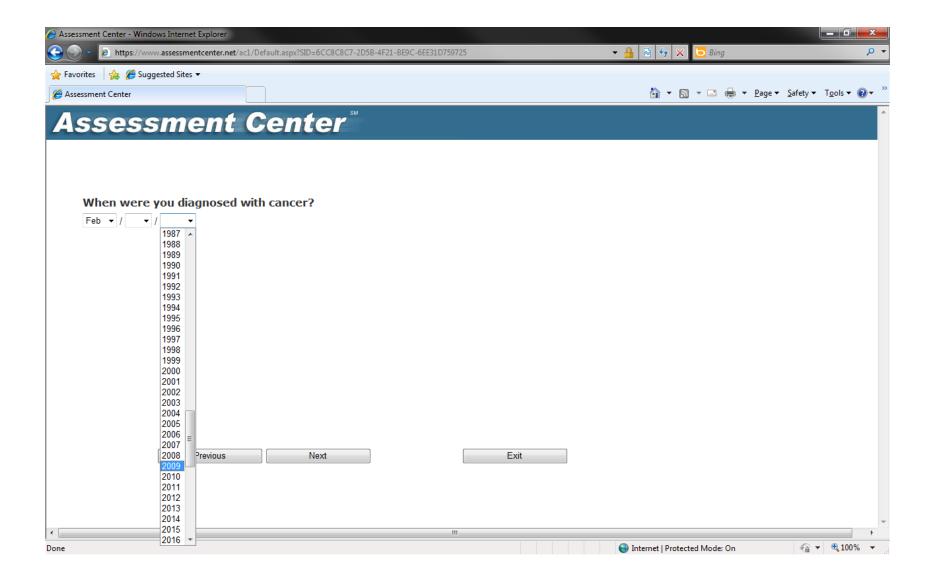
Login and Password Generation



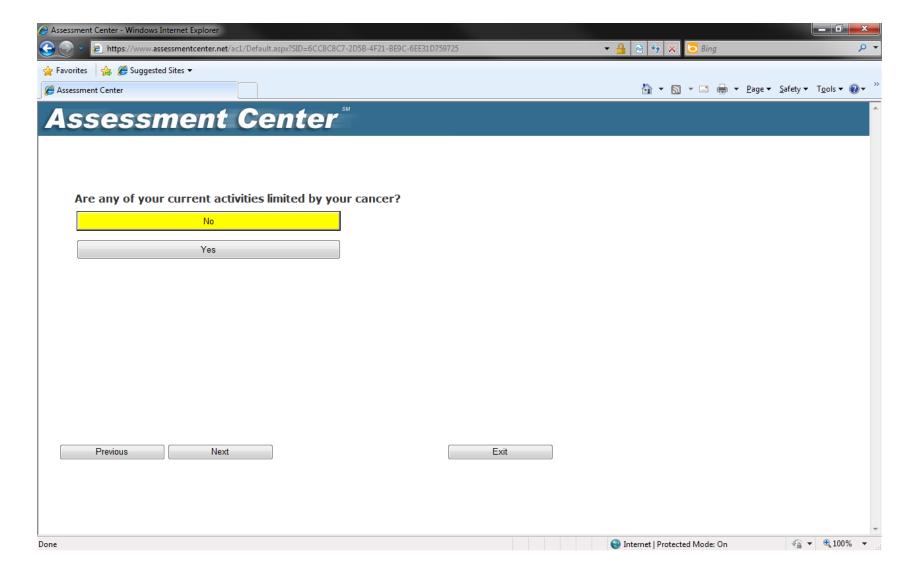
Informational Item



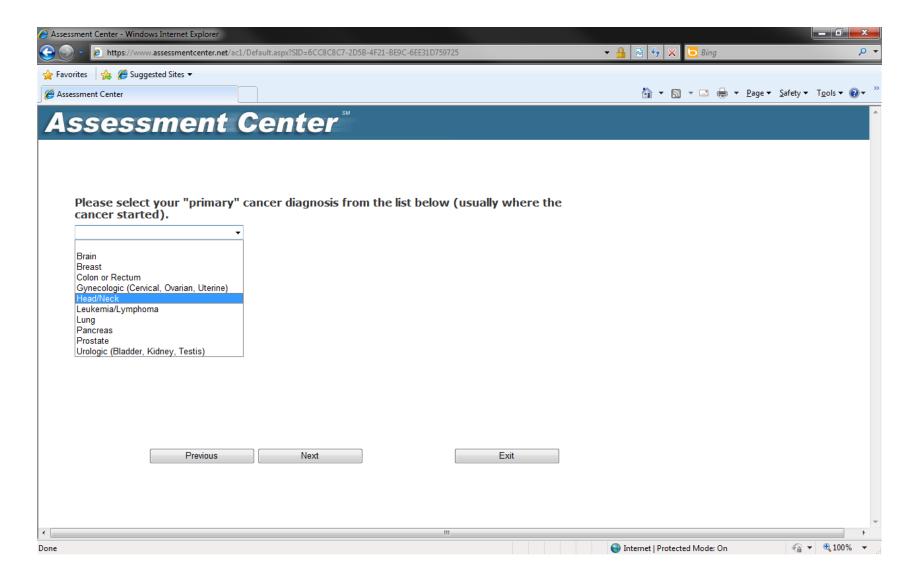
Date Item

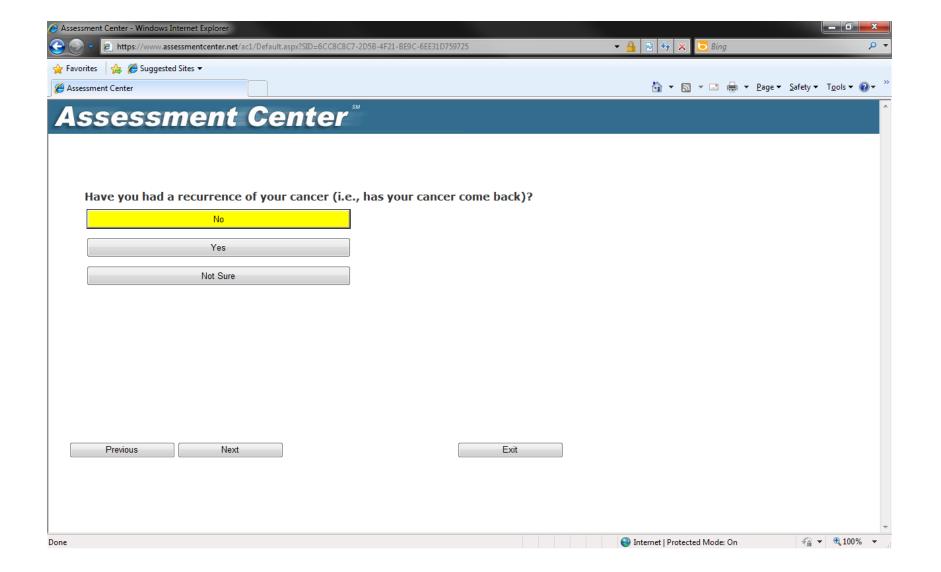


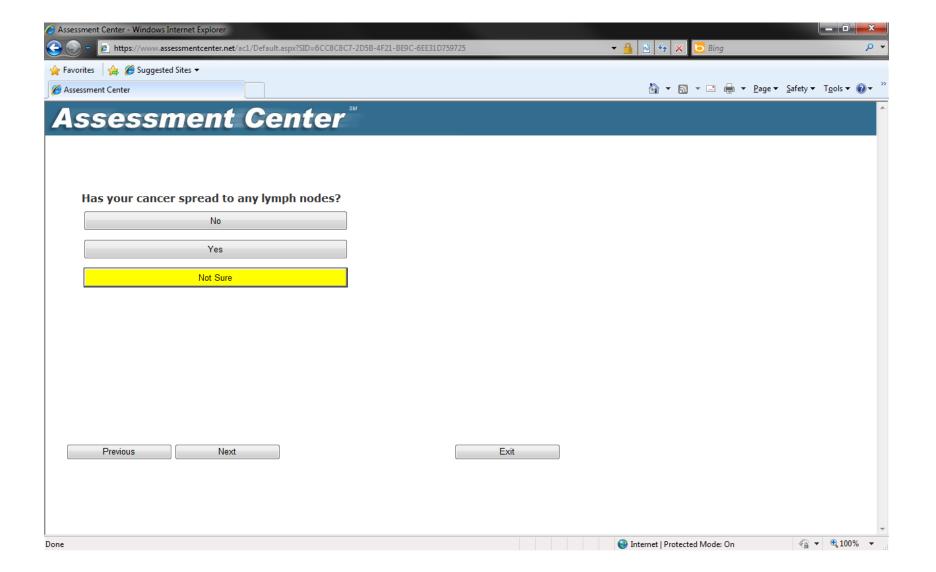
Multiple Choice Item



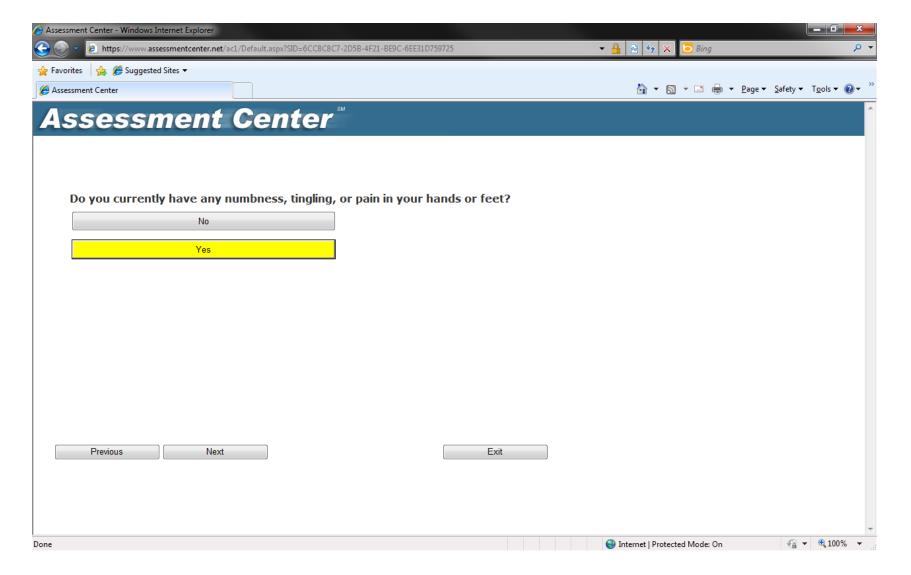
Drop List Item



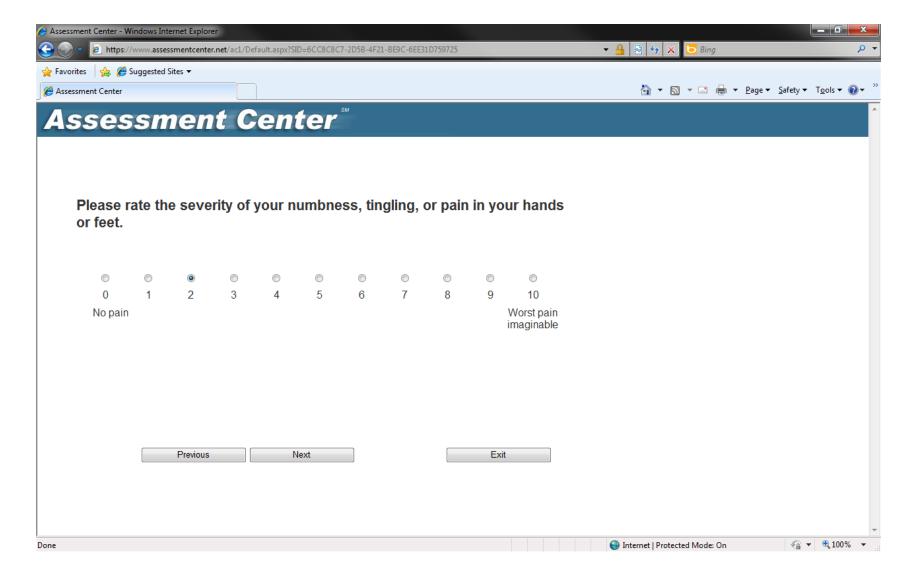




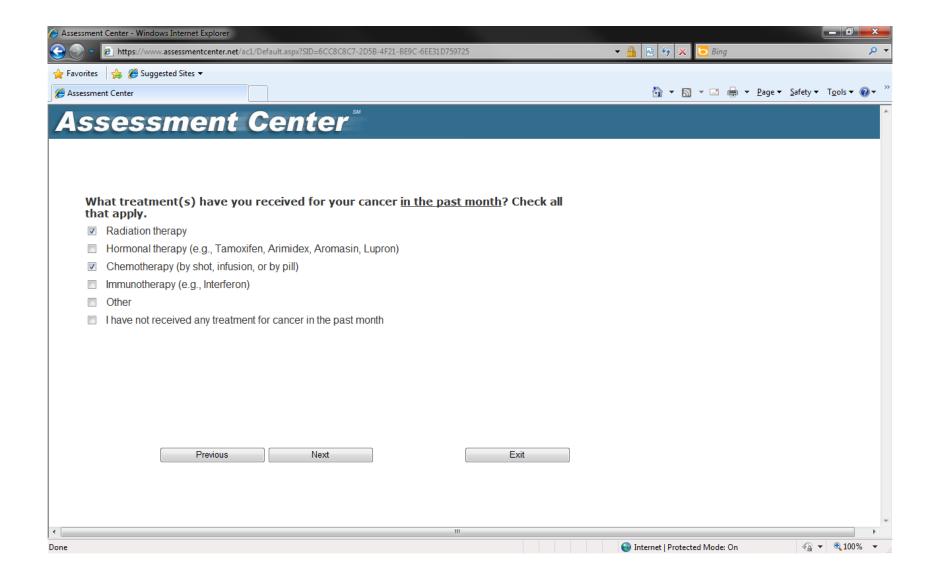
Branching



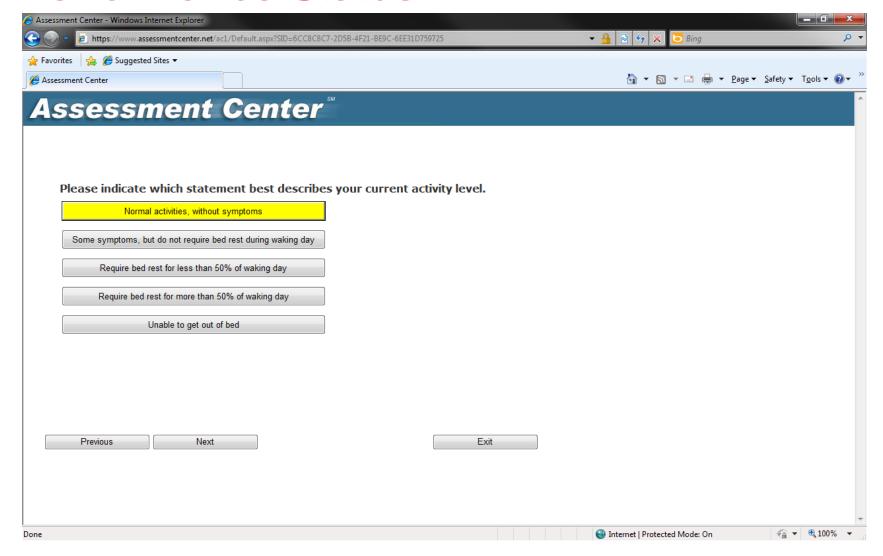
Branching



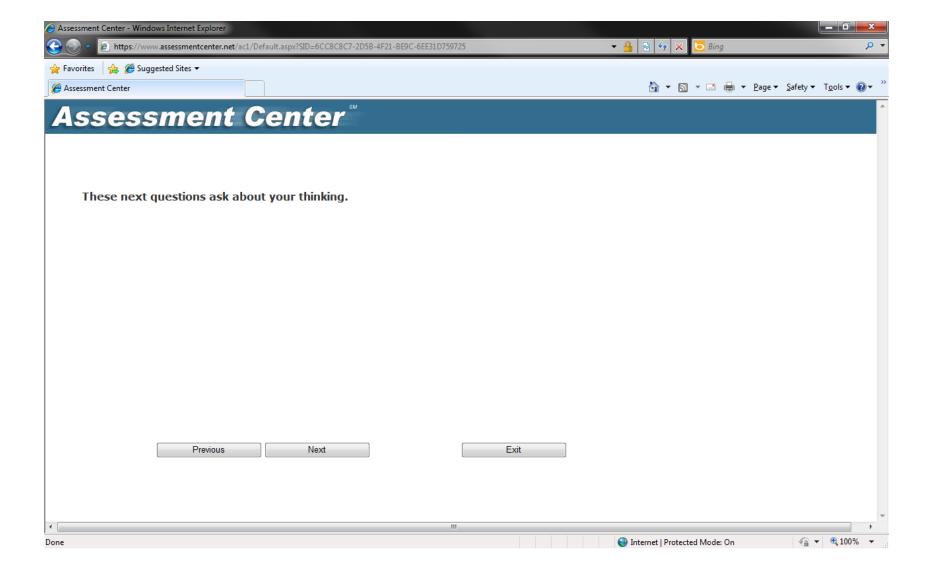
Checklist Item



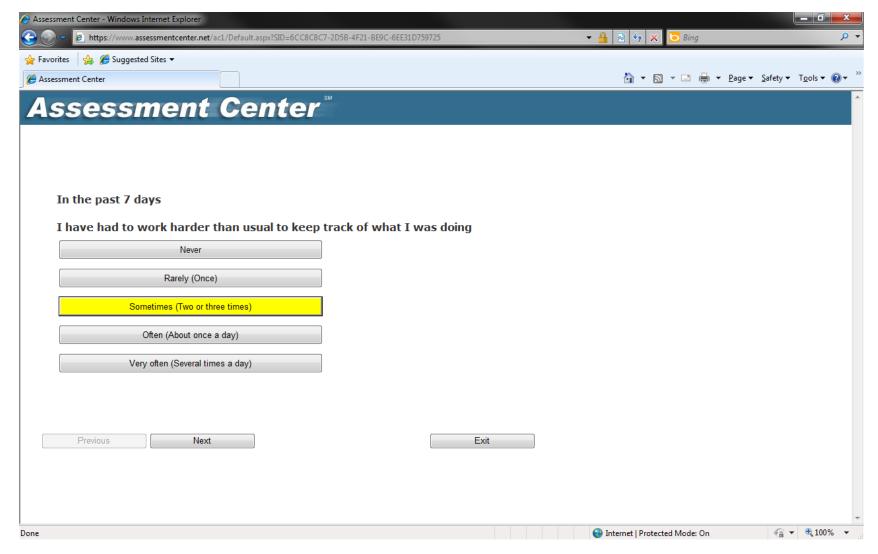
Patient Reported ECOG Performance Status

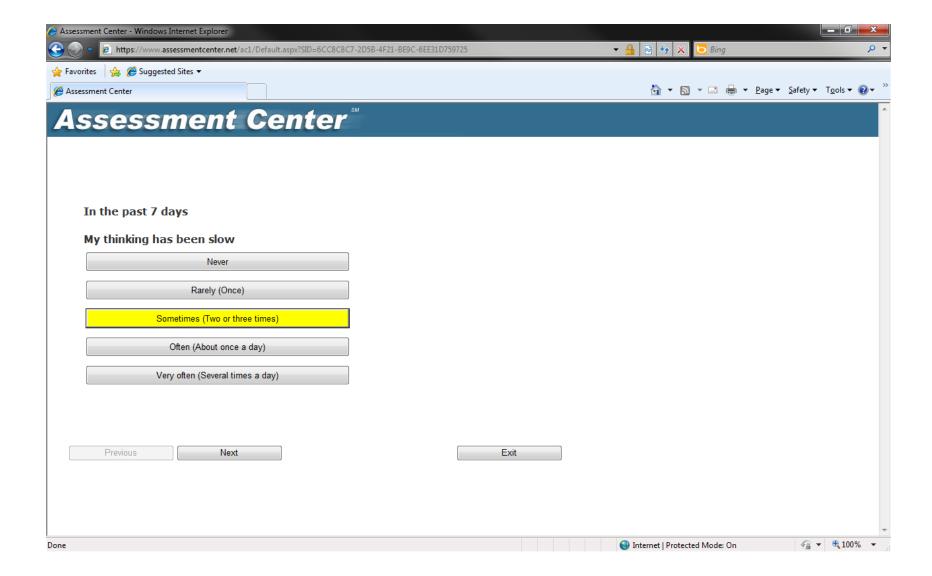


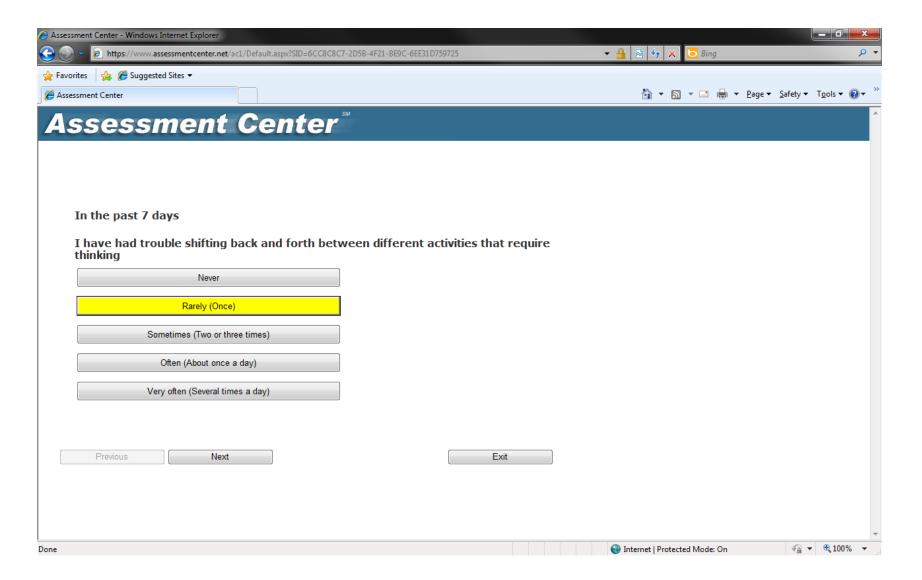
Informational Item

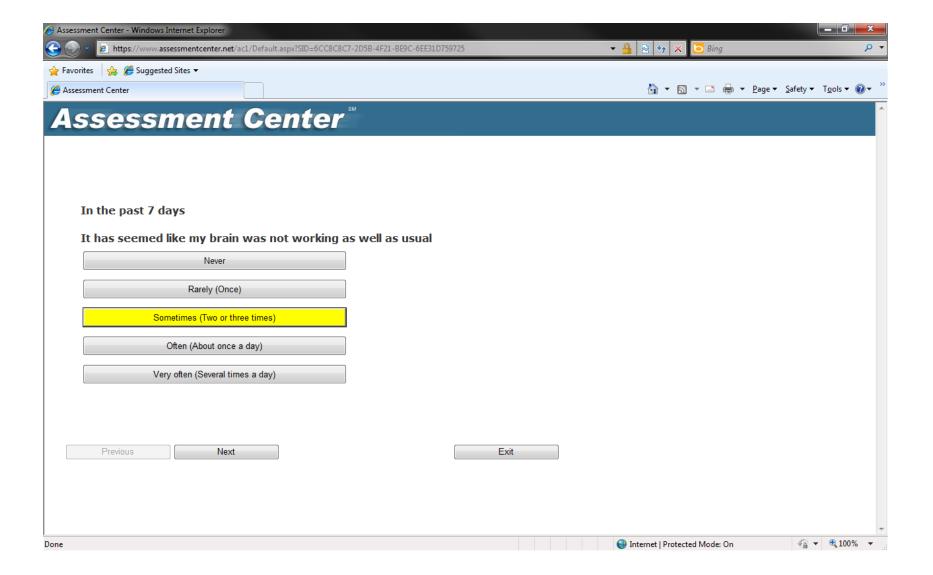


PROMIS Applied Cognition General Concerns CAT – Item 1

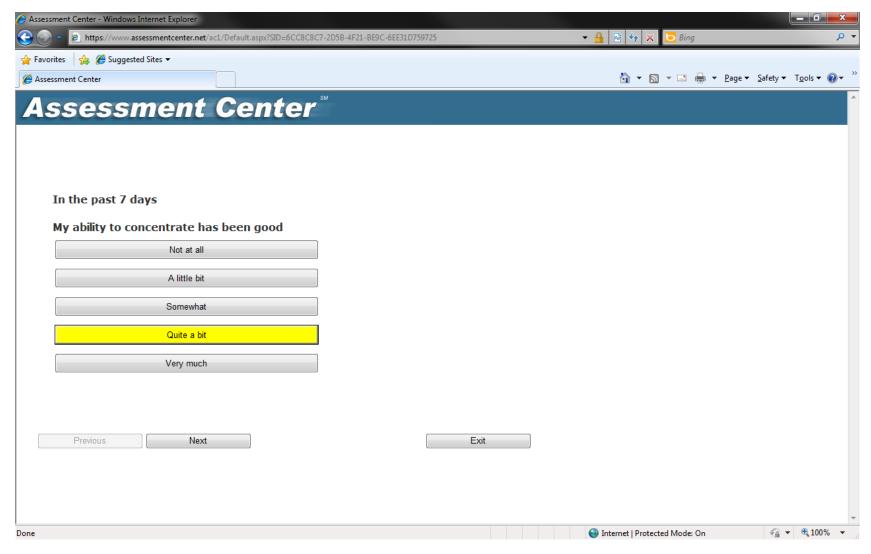


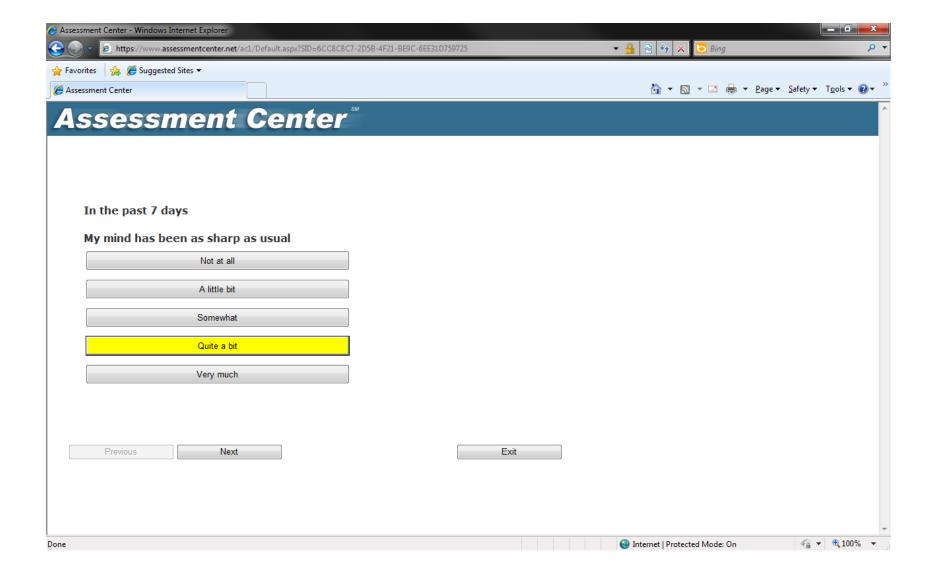


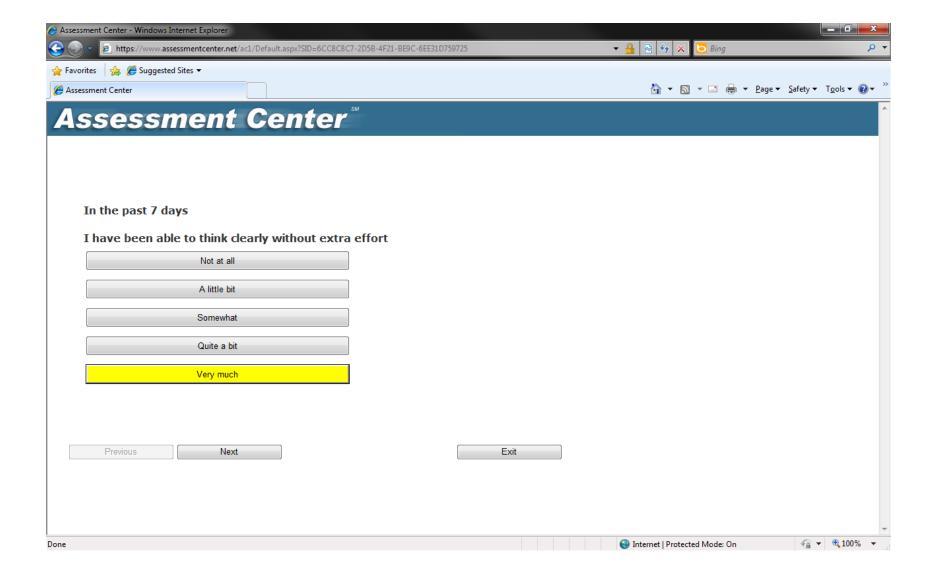


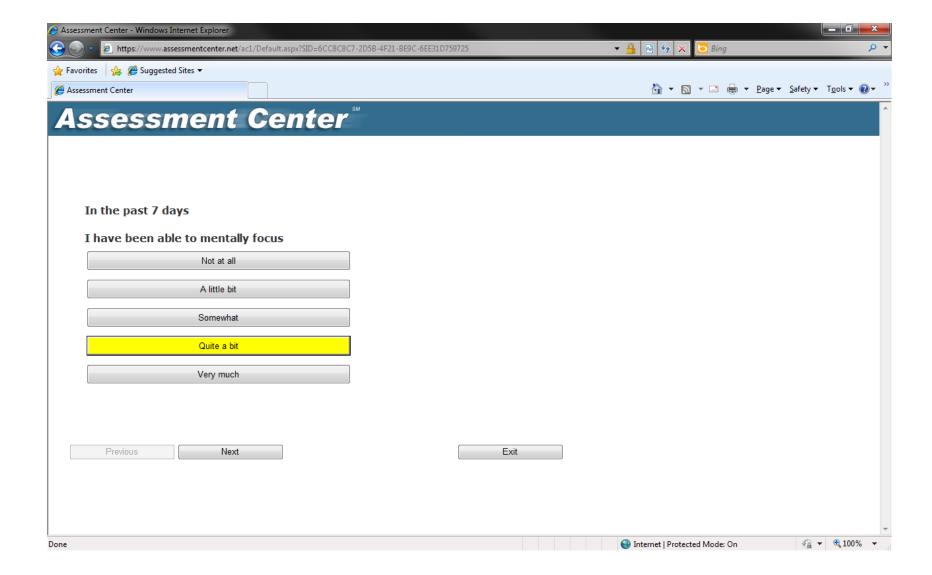


PROMIS Applied Cognition Abilities CAT – Item 1

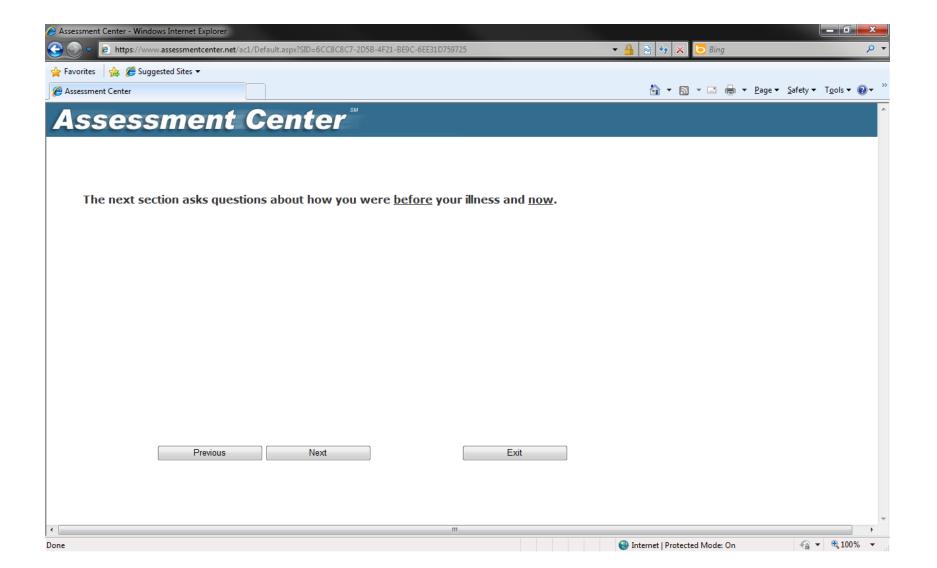




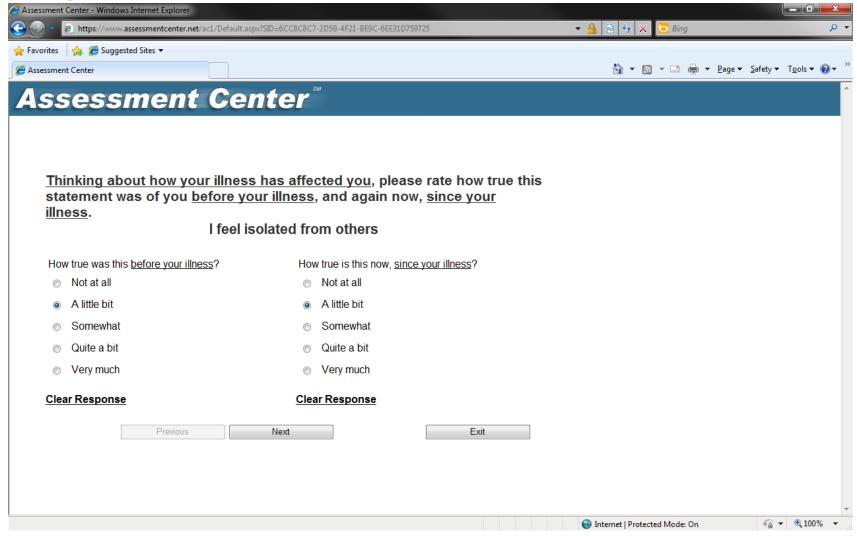


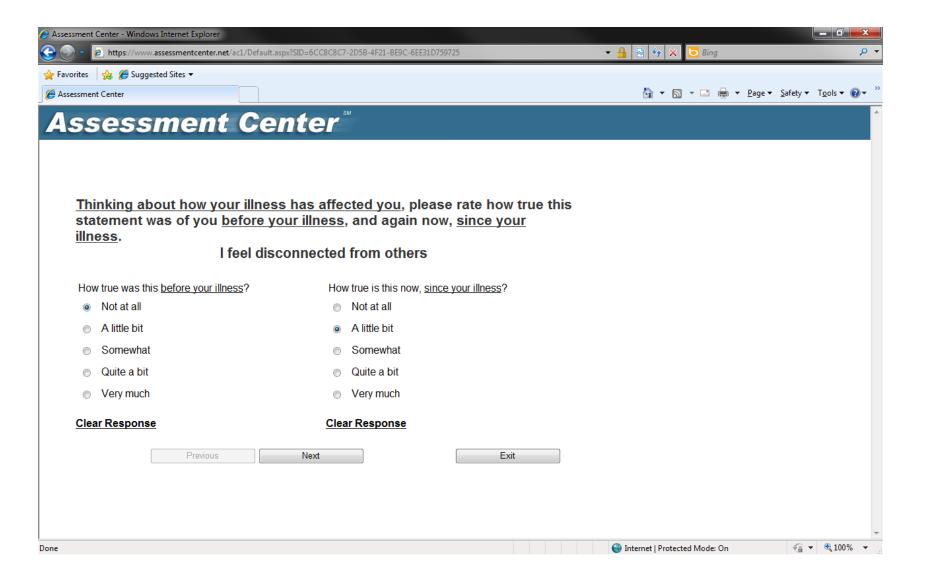


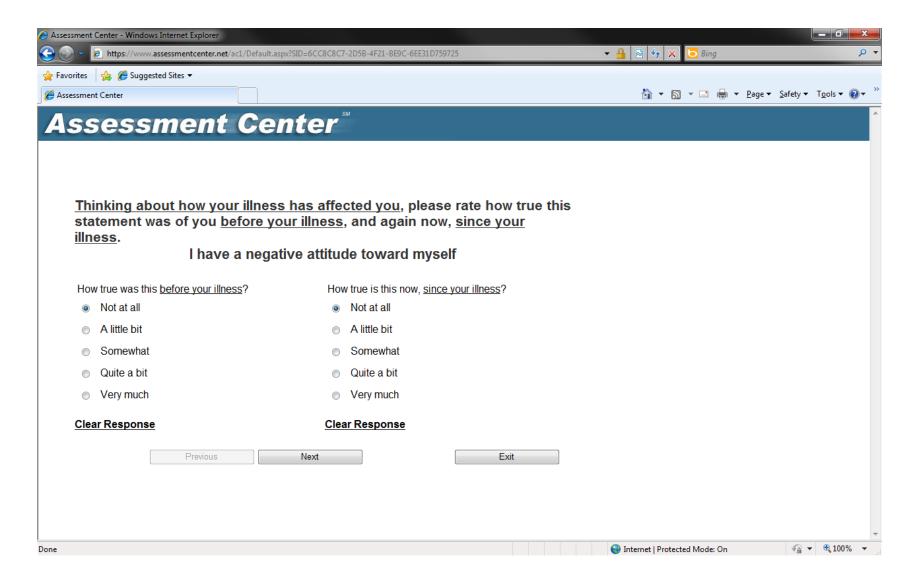
Informational Item

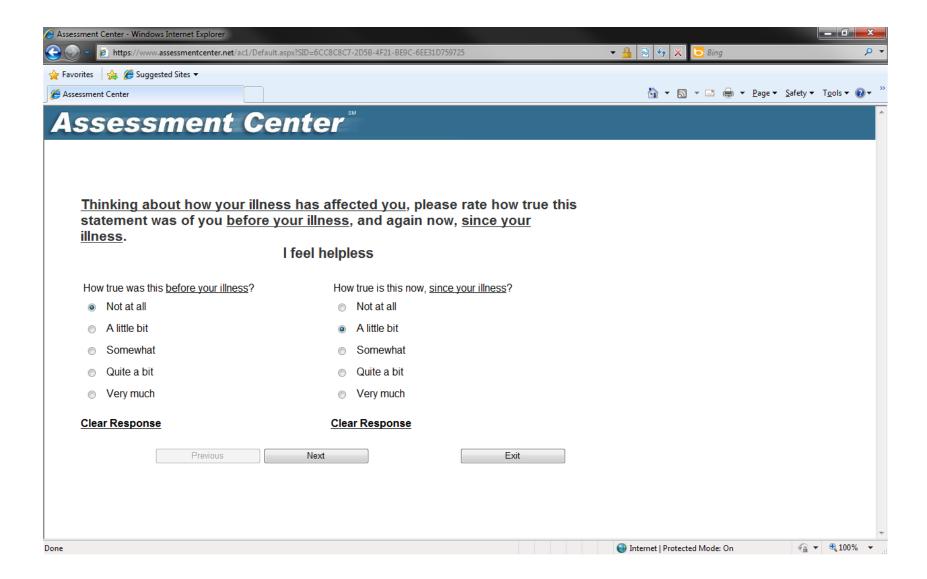


PROMIS Psychosocial Illness Impact Negative CAT – Item 1

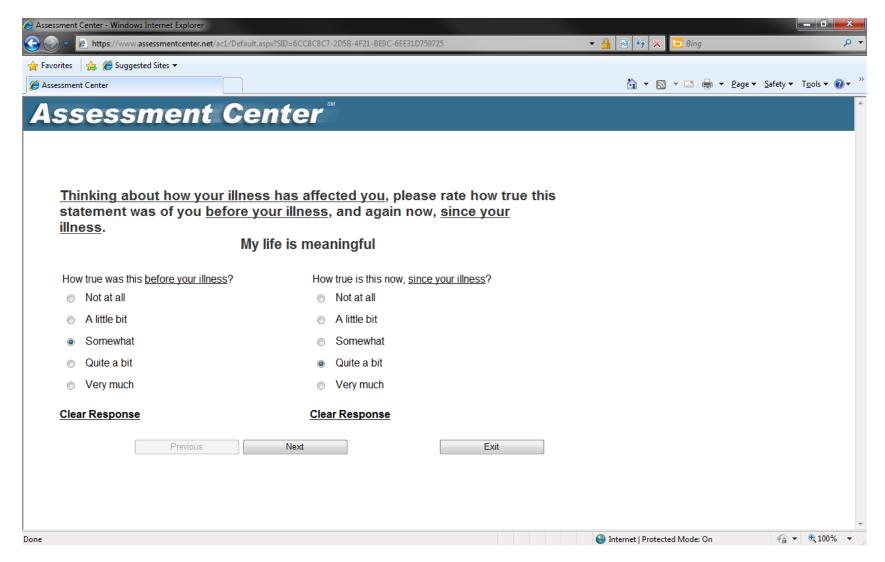


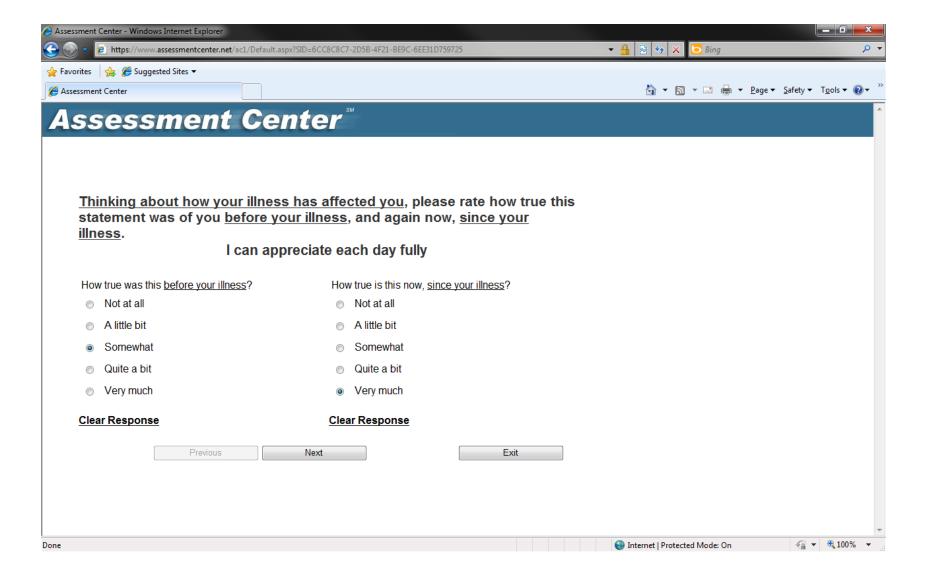


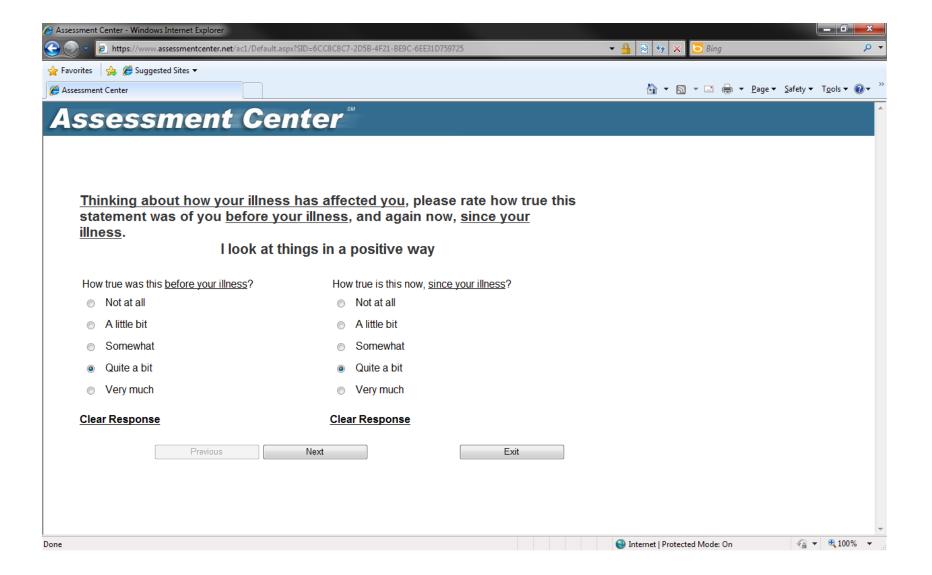


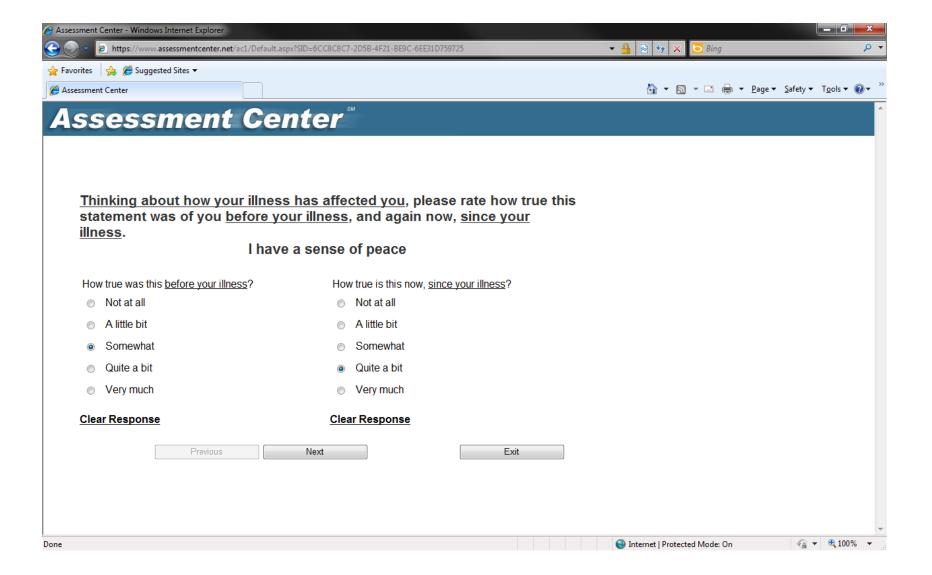


PROMIS Psychosocial Illness Impact Positive CAT – Item 1

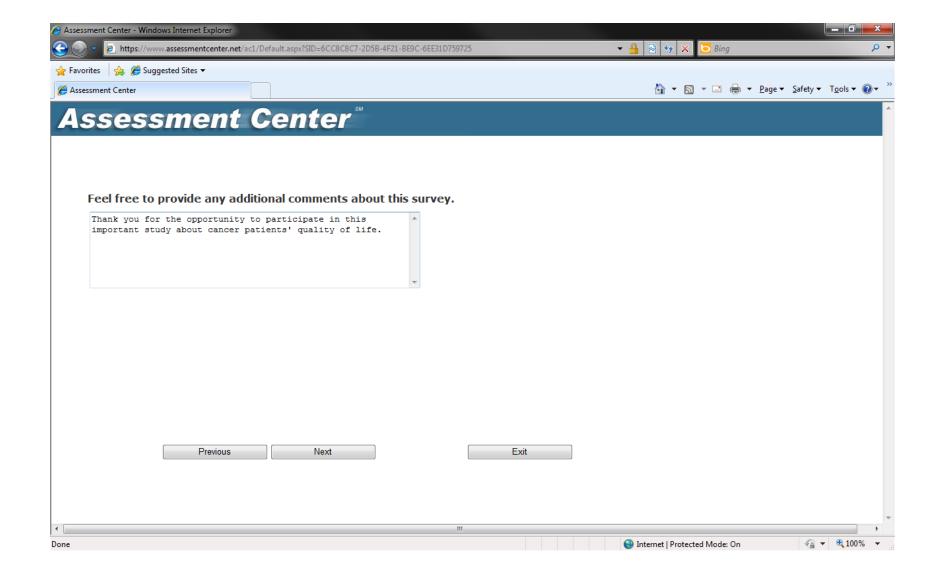




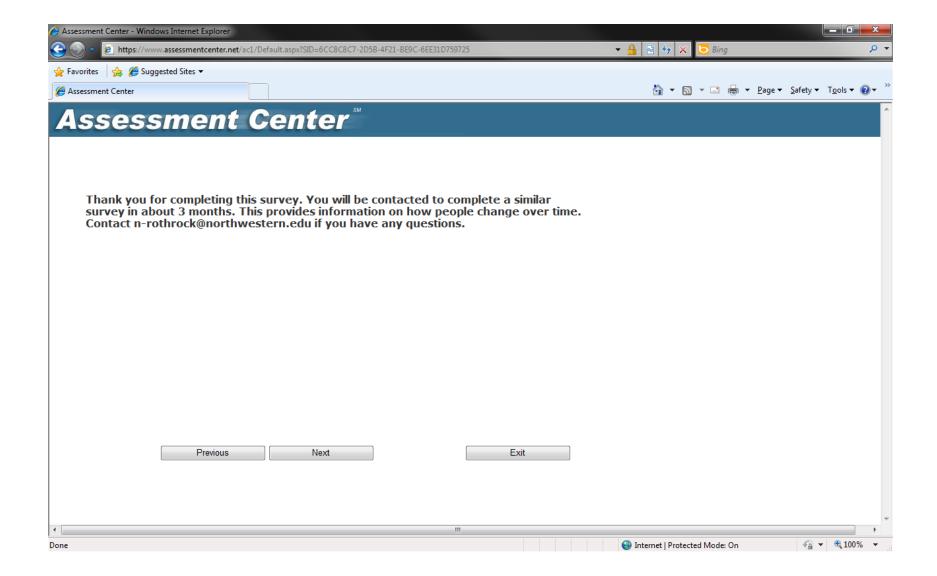




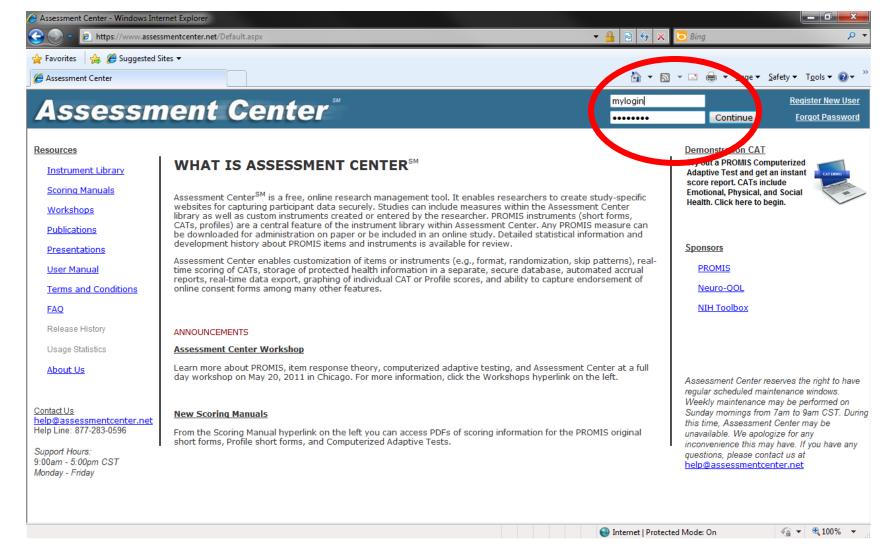
Comments



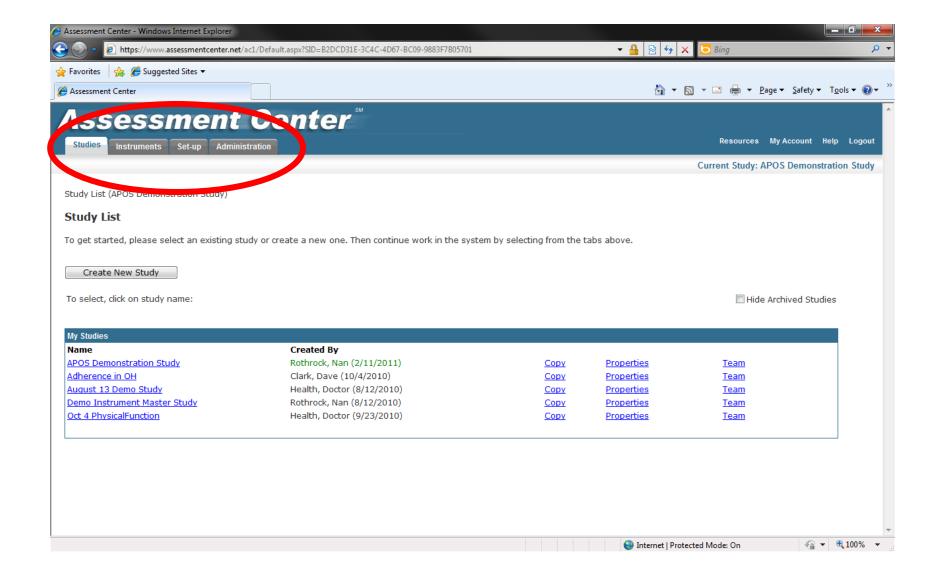
Informational Item



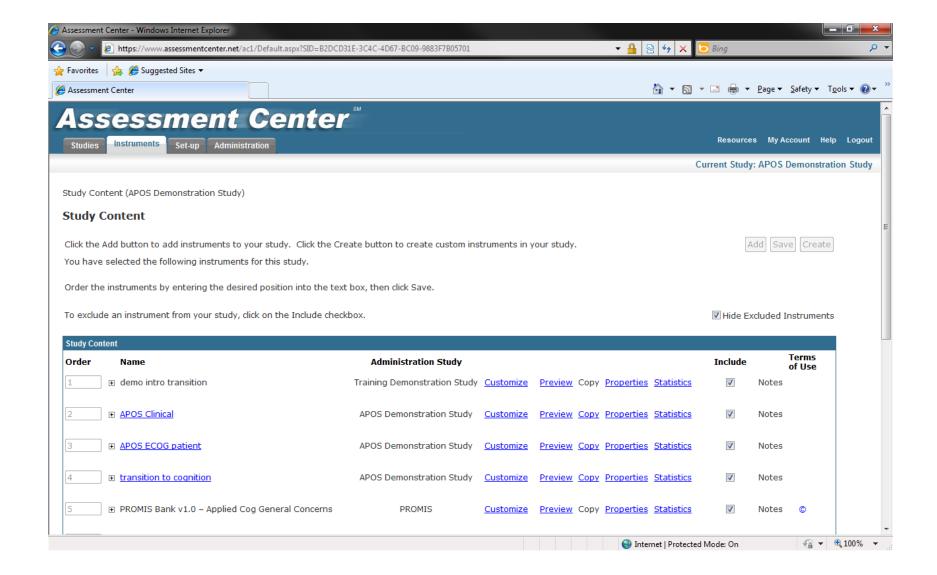
Assessment Center Homepage www.assessmentcenter.net



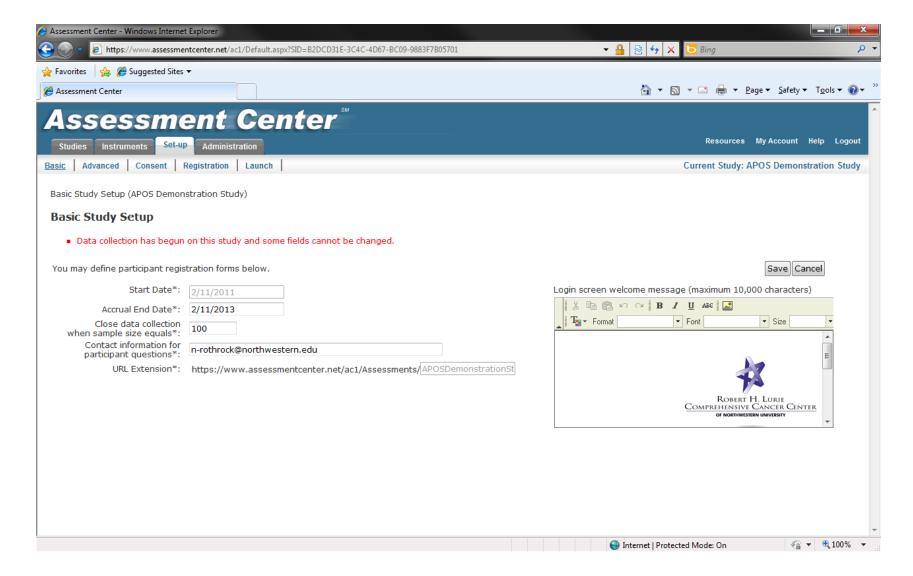
Researcher Interface



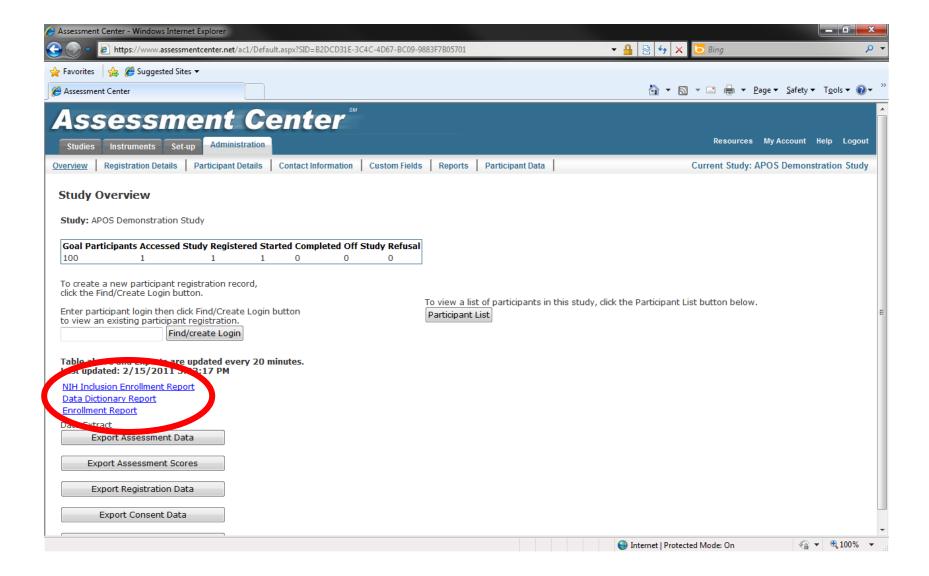
Instruments Tab



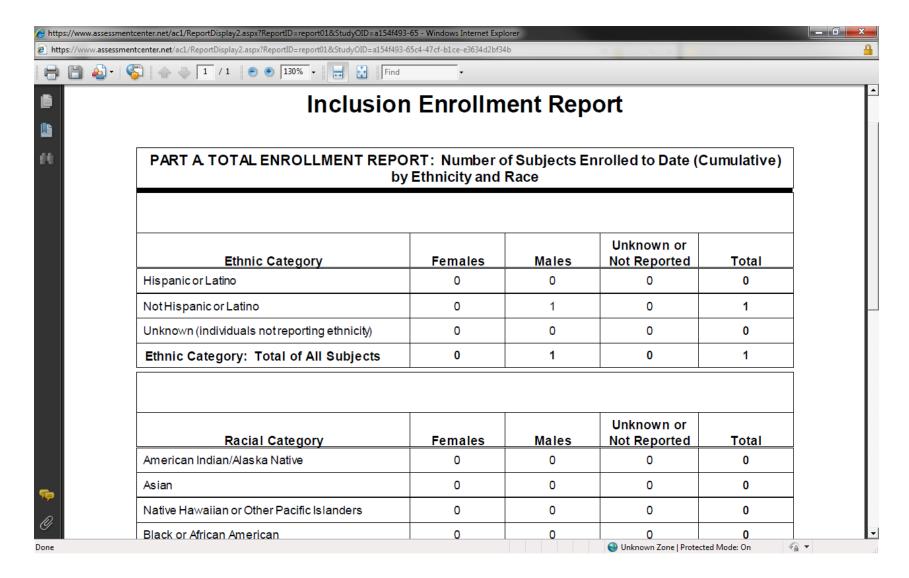
Set-Up Tab



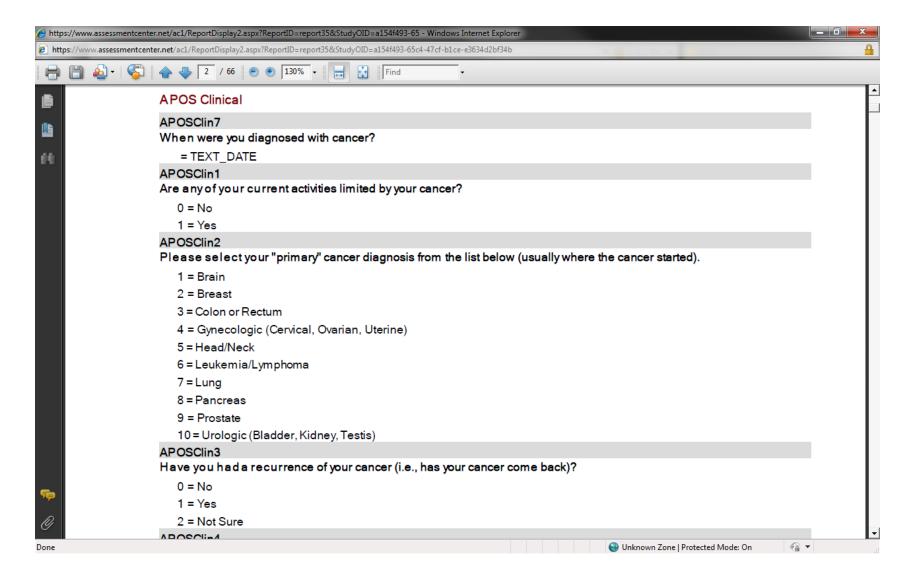
Administration Tab



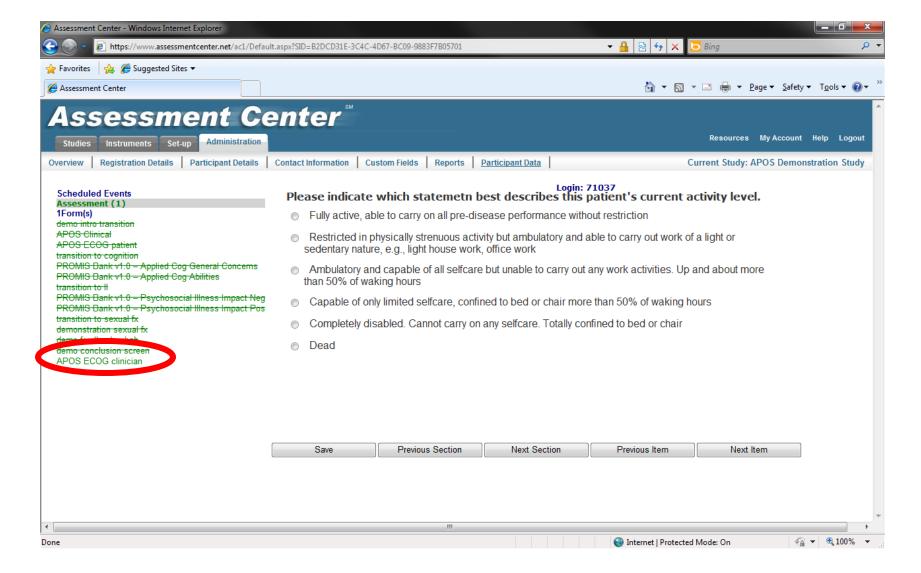
NIH Accrual Report



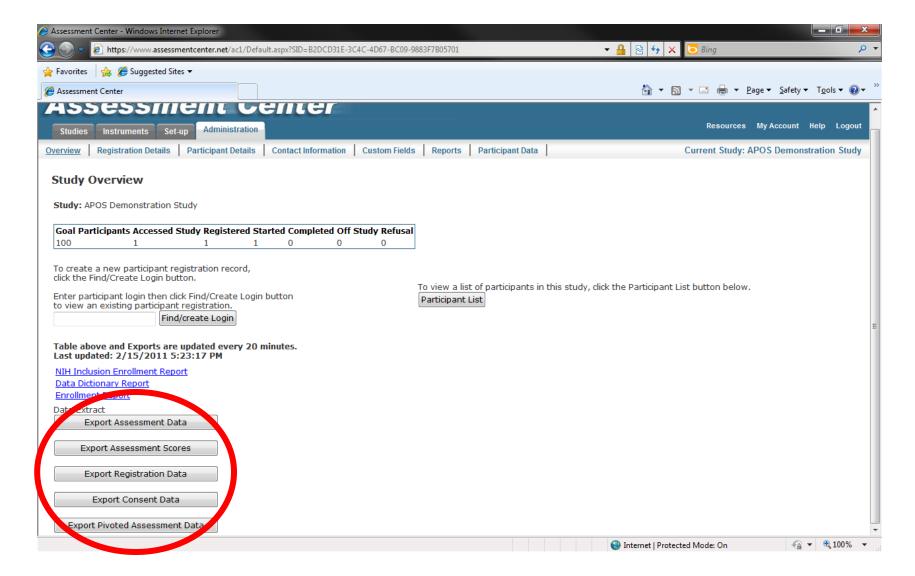
Data Dictionary



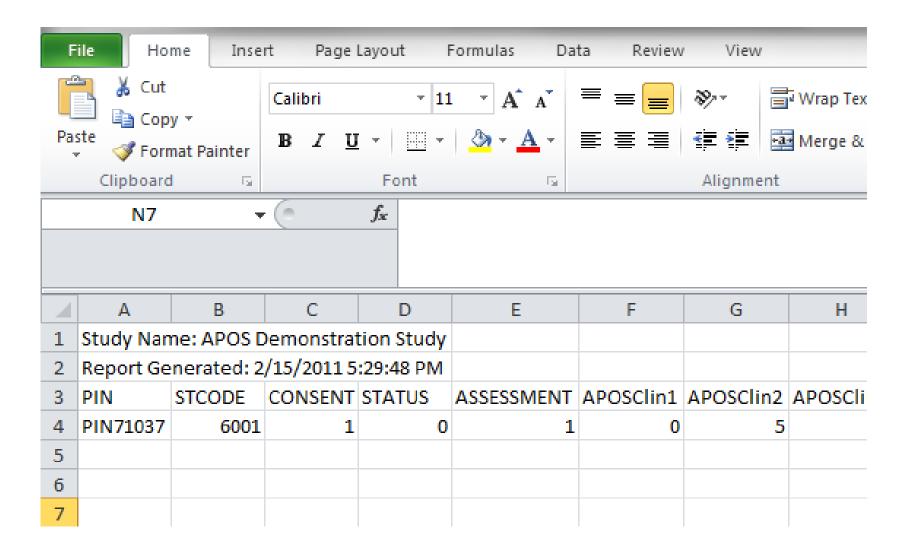
Researcher-Completed Instrument



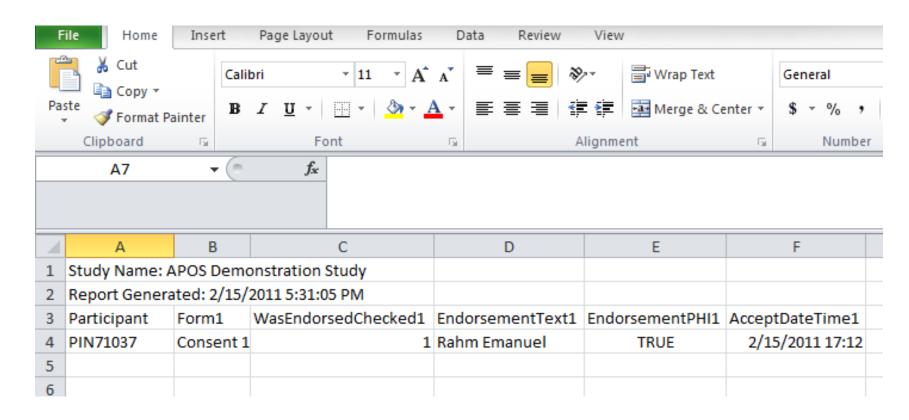
Data Exports



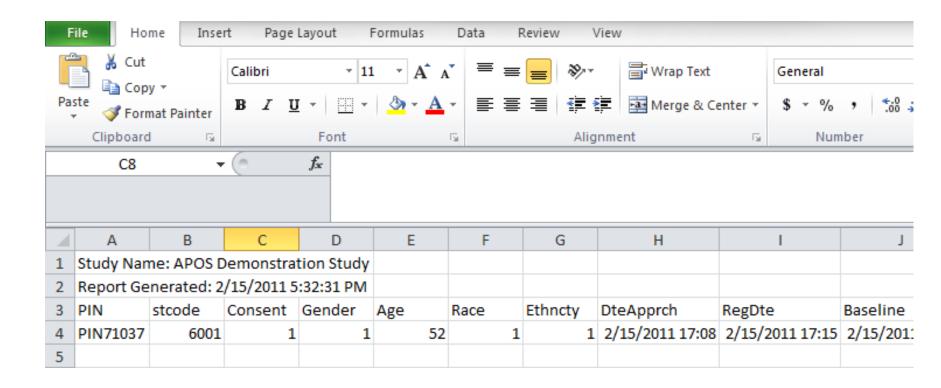
Pivoted Assessment Data Export



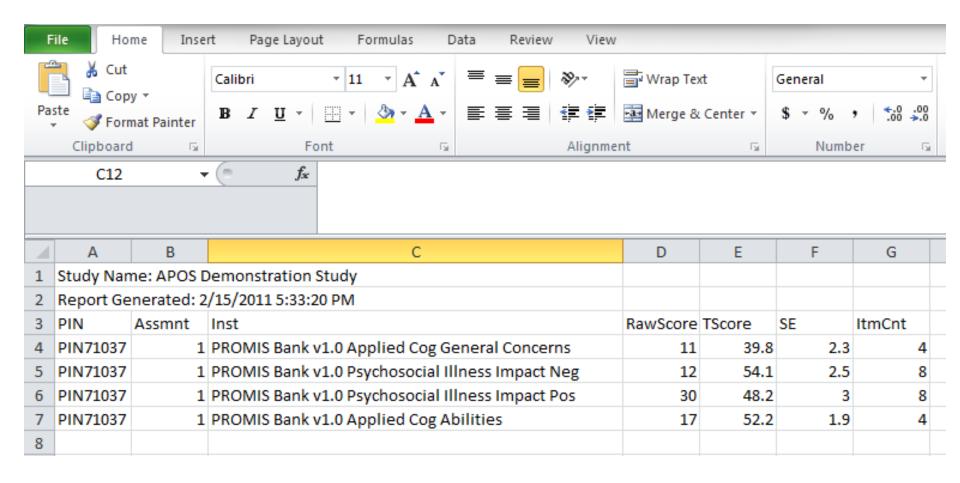
Consent Data Export



Demographic/PHI Data Export



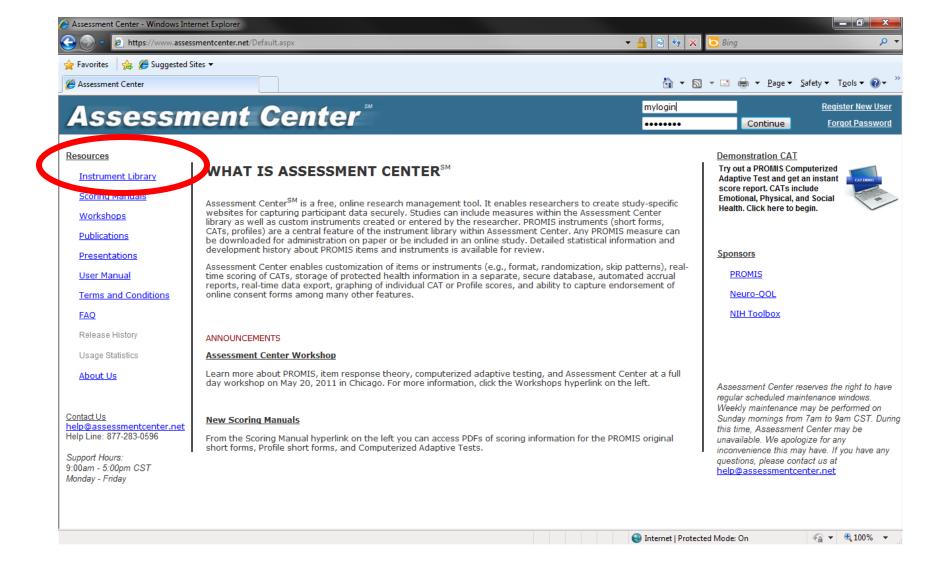
PROMIS Instrument Scores Export



Full Assessment Data Export

A	Α	В	С	D	E	F	G	Н		J	K	L	M	N	0
1	Study Nan	ne: APOS I	Demonstra	tion Study											
2	Report Ge	nerated: 7	2/15/2011 5	i:34:05 PM											
3	Pin	Assmnt	MdlOrdr	Inst	ItemID	PHI	Response	Score	Theta	TScore	SE	DataType	Postn	Time	DteCrtcd
4	PIN71037	1	. 1	. APOS Clin	APOSClin7	FALSE	1	Jan 31 1916				date		1 32	2/15/20.1
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7	PIN71037	1	. 1	APOS Clin	APOSClin3	FALSE	1	. 0				integer		4 12	2/15/2011
8	PIN71037	1	. 1	APOS Clin	APOSClin4	FALSE	3	2				integer		5 12	2/15/2011
9	PIN71037	1	. 1	APOS Clin	APOSClin5	FALSE	2	2 1				integer		6 11	2/15/2011
10	PIN71037	1	. 1	APOS Clin	APOSClin5a	FALSE	3	2				integer		7 17	2/15/2011
11	PIN71037	1	. 1	APOS Clin	APOSClin6	FALSE		5				bitwise		8 18	2/15/2011
12	PIN71037	1	. 1	APOS ECO	APOSECOGpt	FALSE	1	. 0				integer		1 13	2/15/2011
13	PIN71037	1	. 1	PROMIS B	PC36	FALSE	3	3	-0.79938	42	0.393398	integer		1 15	2/15/2011
14	PIN71037	1	1	PROMIS B	PC2	FALSE	3	3	-0.82983	41.7	0.290026	integer		2 14	2/15/2011
15	PIN71037	1	1	PROMIS B	PC42	FALSE	2	2 2	-1.08248	39.2	0.2566	integer		3 13	2/15/2011
16	PIN71037	1	. 1	PROMIS B	PC35	FALSE	3	3	-1.01727	39.8	0.226317	integer		4 15	2/15/2011
17	PIN71037	1	. 1	PROMIS B	PC-CaPS4	FALSE	4	4	0.057454	50.6	0.369719	integer		1 12	2/15/2011
18	PIN71037	1	. 1	PROMIS B	PC43_2	FALSE	4	4	0.091557	50.9	0.262935	integer		2 12	2/15/201
19	PIN71037	1	. 1	PROMIS B	PC-CaPS3	FALSE	5	5	0.288049	52.9	0.225317	integer			2/15/2011
20	011174007		. 1	5554455	00 0 000	54105	-	_	0.00000	50.0	0.404050				alar ly had

Assessment Center Homepage



Instrument Library

PROMIS Instruments Available for Use

February 13, 2011

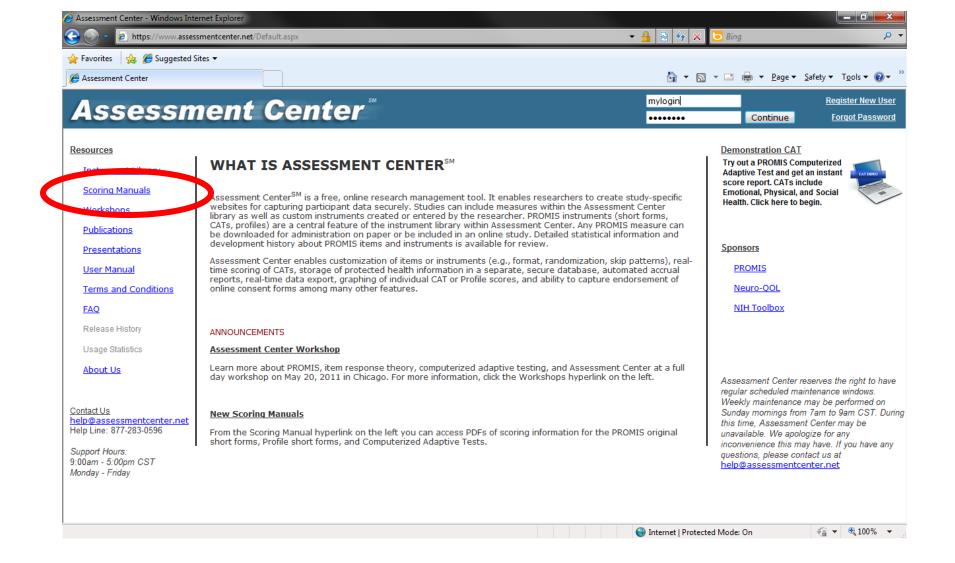
PROMIS has many assessment options available to measure self-reported health for clinical research and practice. PROMIS assessment instruments are drawn primarily from calibrated item banks (sets of well-defined and validated items) measuring concepts such as pain, fatigue, physical function, depression, anxiety and social function. These calibrated item banks can be used to derive short forms (typically requiring 4-10 items per concept), or computerized adaptive testing (typically requiring 3-7 items per concept for more precise measurement). Assessments are available for children and adults. Most PROMIS instruments are available through Assessment Center (www.assessmentcenter.net). Those which are not yet available on Assessment Center can be obtained by contacting the PROMIS Statistical Center through help@assessmentcenter.net. Assessment Center can be utilized for online or offline computer-based administration or instruments can be downloaded for paper administration or entry into other data collection platforms.

Tables 1 and 2 list the calibrated item banks, short forms, and profiles (a fixed collection of short forms measuring 7 of the most important PROMIS concepts). Table 3 highlights instruments soon to be available in Assessment Center.

Table 1: PROMIS Item Banks and Short Forms Available on Assessment Center (www.assessmentcenter.net)

	Adult	- # items	Pediatric - # items		
Domain	Bank	Short Forms	Bank	Short Form	
Emotional Distress – Anger	29	8		6	
Emotional Distress – Anxiety	29	4, 6, 7, 8	15	8	
Emotional Distress – Depression	28	4, 6, 8a, 8b	14	8	
Applied Cognition – Abilities	33	4, 6, 8			
Applied Cognition – General Concerns	34	4, 6, 8			
Psychosocial Illness Impact – Positive	39	4, 8			
B 1 1111 1 1 1 1	0.0				

Assessment Center Homepage



Scoring Manuals

PROMIS Scoring Manuals

PROMIS Scoring Manuals describe how individual PROMIS instruments or measures are scored. Additional information about how they available for the measures listed below. Note that the instruments themselves can be accessed within Assessment Center's "Resources" hyp

Overview

PROMIS Global Health short form

PROMIS Pediatric short forms

Adult v1.0 Short Forms

Introduction

Anger

Anxiety

Depression

Fatigue

Pain Behavior

Pain Interference

Physical Function

Satisfaction with Participation in Discretionary Social Activities

Sleep Disturbance

Sleep-Related Impairment

Adult v1.0 Profile short Forms

Introduction

Anxiety

Depression

Sample Scoring Manual



Patient-Reported Outcomes Measurement Information System PROMIS Dynamic Tools to Measure Health Outcomes From the Patient Perspective

SCORING THE INSTRUMENT

Depression 8b							
Short Form Conversion Table							
Raw Score	T-score	SE*					
8	37.1	5.5					
9	43.3	3.4					
10	46.2	2.8					
11	48.2	2.4					
12	49.8	2.2					
13	51.2	2.0					
14	52.3	1.9					
15	53.4	1.8					
16	54.3	1.8					
17	55.3	1.7					
18	56.2	1.7					
19	57.1	1.7					
20	57.9	1.7					
21	58.8	1.7					
22	59.7	1.8					
23	60.7	1.8					
24 25	61.6	1.8					
25	62.5	1.8					
26 27	63.5	1.8					
27	64.4	1.8					
28	65.4	1.8					
29	66.4	1.8					
30	67.4	1.8					
31	68.3	1.8					
32	69.3	1.8					
33	70.4	1.8					
34	71.4	1.8					
35	72.5	1.8					
36	73.6	1.8					
37	74.8	1.9					
38	76.2	2.0					
39	77.9	2.4					
40	81.1	3.4					
*SE = Standard Error on T-score metric							

Each question has five response options ranging in value from one to five. To find the total raw score, sum the values of the response to each question. For example, for the eight-item form, the lowest possible raw score is 8; the highest possible raw score is 40 (Table 1).

You can use Table 1 to translate the total raw score into a T-score for each participant. The T-score rescales the raw score into a standardized score with a mean of 50 and a standard deviation (SD) of 10. Therefore, a person who has a Tscore of 40 is one SD below the U.S. general population mean. These conversions are accurate ONLY when all questions on the short form have been answered. For the 8-item form. a raw score of 24 converts to a T-score of 61.6 with a standard error (SE) of 1.8. Thus, the 95% confidence interval around the actual observed score ranges from 58.1 to 65.1 (T-score \pm (1.96*SE) = 61.6 \pm 3.5 = 58.1 to 65.1).

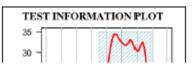
Important: A higher PROMIS T-score represents more of the concept being measured. For negatively-worded concepts like depression, a T-score of 60 is one SD worse than average. By comparison, a depression T-score of 40 is one SD. better than average.

You can upload data to a free computer program called PROMIScore, which will score your data one person at a time or as a group. PROMIScore is particularly useful because it can calculate T-scores even when there are missing responses. The PROMIScore software and user manual are available for download at nihpromis.org.

STATISTICAL CHARACTERISTICS

There are three key features of the score for depression:

 Reliability: The degree to which a measure is free of error. It can be estimated by the internal consistency of the responses to the



PROMIS Homepage: nihpromis.org



Patient-Reported Outcomes Measurement Information System PROMIS Dynamic Tools to Measure Health Outcomes From the Patient Perspective



HOME

About PROMIS

- PROMIS History. Overview, Goals and Objectives
- PROMIS Network

Domain Framework

- Domain Framework
- Domain Definitions
- Pediatric Domain Framework

Item Bank Development

- Literature Review for Items
- Archival Data Analysis
- Item Classification
- Qualitative Item Review
- Preliminary Item Pools
- Pediatric Item Banks

Welcome to PROMIS

PROMIS®

Patient-Reported Outcomes Measurement System ® Health Outcome Measures from the Patient Perspective.

The Patient-Reported Outcomes Measurement Information System (PROMIS) is a network of NIH-funded primary research sites and coordinating centers working collaboratively to develop a series of dynamic tools to reliably and validly measure patient-reported outcomes (PROs). PROMIS provides an opportunity to improve healthcare outcomes by giving decision makers hard data on how healthcare affects what patients are able to do and how they feel. The information is derived from patient responses to a set of rigorously designed questions about different aspects of health-related quality of life (pain, fatigue, anxiety, depression, social functioning, physical functioning, quality of sleep, etc.). Each measure is subjected to a multi-stage development and testing program to ensure that the information meets scientific standards of reliability with the goal to enable clinicians and researchers to have access to efficient, precise, valid, and responsive indicators of a person's health status. These measures are available for use across a wide variety of chronic diseases and conditions and in the general population. PROMIS efforts are supported through three main centers that include the PROMIS Statistical Center (PSC), PROMIS Network Center (PNC) and the PROMIS Technical Center (PTC).

PROMIS® Statistical Center

The PROMIS Statistical CenterSM (PSC) advises and educates members of the network on a range of qualitative and quantitative research methods, develops and implements processes to ensure data quality; provides leadership in the development of PROMIS approved translations of new and extant domains; assists in the development and implementation of protocols; provides consultation on research design, sample size, sampling plans and power estimates for item bank testing; provides psychometric and statistical support for the network; and works collaboratively with the PROMIS Network to create sustainability.

Contact Us

Please contact us t Network, learn mo and ask questions measure health ou



Important New

URI

NIH PROMIS: Advar Patient Care: Janua

METRIC Cyber Semi

FIRESTAR

PROMIScore

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More Information

PROMIS: www.nihPROMIS.org

- Live CAT demonstration with score report
- Item development histories, protocols

Assessment Center: www.assessmentcenter.net

- Assessment Center User Manual
- Assessment Center Online Help

Training Workshops

www.assessmentcenter.net

Acknowledgements

 National Institutes of Health (Grants U54 AR 057943, U05 AR 057951, U01 AR 052177)